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WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)

CIRA CENTRE, 12TH FLOOR

2929 ARCH STREET

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EXAMINER

MUHEBBULLAH, SAJEDA

ART UNIT

PAPER NUMBER

2174

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DELIVERY MODE

06/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,742

Applicant(s)

BEAR ET AL.

Examiner

SAJEDA MUHEBBULLAH

Art Unit

2174

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-35, 37-53, 55-71 and 73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-35, 37-53, 55-71 and 73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to RCE/Amendment filed 03/27/2008.
2. Claims 1-17, 19-35, 37-53, 55-71 and 73 are pending in this application. Claims 1, 19, 37, 55, and 73 have been amended.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-5, 8, 17, 19-20, 22-23, 26, 35, 37-38, 40-41, 44, 53, 55-56, 58-59, 62, 71 and 73 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. ("Anderson", US 6,744,451).

As per claim 1, Anderson teaches a user interface system, said system comprising a plurality of logical buttons and their physical equivalents,

wherein said physical equivalents are arranged symmetrically in a multi-dimensional manner suggesting that a functionality of the physical equivalents is logically interrelated and determinable from a physical layout of the physical equivalents (Fig.6D, *physical buttons 611, 612, 636, 633, 624, 625*), and

wherein said physical equivalents map to a corresponding plurality of asymmetrical logical buttons, the asymmetrical logical buttons being logically unrelated to each other (Fig.6D, *physical buttons 611, 612, 624, 625 map to buttons that are asymmetrical*).

As per claim 2, Anderson teaches the user interface system wherein a subset of the logical buttons and their physical equivalents are arranged on a horizontal axis (horizontally) (Fig.6D, *horizontal buttons 611, 612, 621, 622*) and a subset of the logical buttons and their physical equivalents are arranged on a vertical axis (vertically) (Fig.6D, *vertical buttons 636, 633*).

As per claim 4, Anderson teaches the user interface system wherein:

said physical equivalents arranged vertically correspond to logical buttons for vertical movement (Fig.6D, *636, 633 buttons*); and said physical equivalents arranged horizontally do not correspond to logical buttons for horizontal movement (Fig.6D, *buttons 611, 612, 621, 622 are not for movement*).

As per claim 5, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise a four-button diamond arrangement (Fig.6D, *buttons 612, 636, 633, and 621 arranged in a four-button diamond arrangement*).

As per claim 8, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise at least two pairs of physical buttons (Fig.6D, *button pair 612, 624 and button pair 636, 633*).

As per claim 17, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise a touchpad (col.6, lines 39-41).

Claims 19, 37, 55, and 73 are similar in scope to claim 1, and are therefore rejected under similar rationale.

Claims 20, 38, and 56 are similar in scope to claim 2, and are therefore rejected under similar rationale.

Claims 22, 40 and 58 are similar in scope to claim 4, and are therefore rejected under similar rationale.

Claims 23, 41 and 59 are similar in scope to claim 5, and are therefore rejected under similar rationale.

Claims 26, 44 and 62 are similar in scope to claim 8, and are therefore rejected under similar rationale.

Claims 35, 53 and 71 are individually similar in scope to claim 17, and are therefore rejected under similar rationale.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 7, 21, 25, 39, 43, 57 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Anderson ("E.Anderson", US 6,122,003).

As per claim 3, Anderson teaches the user interface system wherein said physical equivalents arranged vertically correspond to vertical movement (Anderson, Fig6D, *buttons* 636,633). However, Anderson does not teach physical equivalents arranged horizontally correspond to logical buttons for horizontal movement; and wherein said physical equivalents arranged vertically do not correspond to logical buttons for vertical movement. E.Anderson teaches a system comprising of buttons arranged horizontally that are used for horizontal movement and vertical buttons which are used for changing modes (E.Anderson, col.6, 1-13; col.6, line 63-col.7, line 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to include E.Anderson's teaching with Anderson's system in order to alter the operation of the buttons depending on the situation in question.

As per claim 7, Anderson teaches the user interface system wherein the physical equivalents comprise of a plurality of buttons (Anderson, Fig.6D). However, Anderson does not teach the physical equivalents comprise a D-Pad. E.Anderson teaches a system comprising of buttons arranged on a D-pad (E.Anderson, Fig.5, D-pad 409). It would have been obvious to one of ordinary skill in the art at the time of the invention to include E.Anderson's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 21, 39 and 57 are individually similar in scope to claim 3, and are therefore rejected under similar rationale.

Claims 25, 43 and 61 are individually similar in scope to claim 7, and are therefore rejected under similar rationale.

7. Claims 6, 24, 42 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Ouellet et al. ("Ouellet", US 6,336,052).

As per claim 6, Anderson teaches the user interface system wherein the physical equivalents comprise of a plurality of buttons (Anderson, Fig.6D). However, Anderson does not teach the physical equivalents comprise an eight-button compass arrangement. Ouellet teaches a system comprising of buttons for movement in an eight button compass arrangement (Ouellet Fig.4C). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Ouellet's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 24, 42 and 60 are individually similar in scope to claim 6, and are therefore rejected under similar rationale.

8. Claims 9, 27, 45 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Muramatsu (US 6,968,215).

As per claim 9, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a wheel. Muramatsu teaches a system comprising a plurality of logical buttons and their physical equivalents to comprise of a wheel and two buttons (Muramatsu, Fig.1, *buttons 16 and 17, wheel*

5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Muramatsu's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 27, 45 and 63 are similar in scope to claim 9, and are therefore rejected under similar rationale.

9. Claims 10-11, 28-29, 46-47 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Anft et al. ("Anft", US 7,146,005).

As per claim 10, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a rocking wheel. Anft teaches a system comprising of a rocking wheel (Anft, Fig.4, col.4, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Anft's teaching with Anderson's system as an alternative means of manipulating data on a display.

As per claim 11, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a super wheel. Anft teaches a system comprising of a super wheel (Anft, Fig.4, col.4, lines 23-28). It would have been obvious to one of ordinary skill in the art at the time of the invention to

include Anft's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 28-29, 46-47 and 64-65 are individually similar in scope to claims 10-11 respectively, and are therefore rejected under similar rationale.

10. Claims 12-15, 30-33, 48-51 and 66-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Armstrong (US 6,559,831).

As per claim 12, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a dogbone. Armstrong teaches a system comprising a plurality of logical buttons and their physical equivalents to comprise of two buttons and a dogbone (Armstrong, Fig.6, *buttons 19-20 and dogbone 16*). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Armstrong's teaching with Anderson's system as an alternative means of manipulating data on a display.

As per claim 13, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a rocking dogbone. Armstrong teaches a system comprising a plurality of logical buttons and their physical equivalents to comprise of a rocking dogbone (Armstrong, Fig.6, *rocking dogbone 18*). It would have been obvious to one of ordinary skill in the art at the time of the invention to

include Armstrong's teaching with Anderson's system as an alternative means of manipulating data on a display.

As per claim 14, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a super dogbone. Armstrong teaches a system comprising a plurality of logical buttons and their physical equivalents to comprise of a super dogbone (Armstrong, Fig.6, *super dogbone 18*). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Armstrong's teaching with Anderson's system as an alternative means of manipulating data on a display.

As per claim 15, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a plurality of discrete button pairs. Armstrong teaches a system comprising a plurality of discrete button pairs (Armstrong, Fig.6, *buttons 19-20*). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Armstrong's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 30-33, 48-51 and 66-69 are similar in scope to claim 12-15, and are therefore rejected under similar rationale.

11. Claims 16, 34, 52 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. ("Anderson", US 6,744,451) in view of Chu (US 6,703,550).

As per claim 16, Anderson teaches the user interface system wherein, in regard to the plurality of logical buttons and their physical equivalents, the physical equivalents comprise of buttons (Fig.6D). However, Anderson does not teach the physical equivalents to comprise of a joystick. Chu teaches a system comprising a plurality of logical buttons and their physical equivalents to be a joystick (Chu, Fig.4). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Chu's teaching with Anderson's system as an alternative means of manipulating data on a display.

Claims 34, 52, and 70 are similar in scope to claim 16, and are therefore rejected under similar rationale.

Response to Arguments

12. Applicant's arguments with respect to Amendment filed 03/27/2008 have been considered but are moot in view of the new ground(s) of rejection.

Communications

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajeda Muhebbullah whose telephone number is (571) 272-4065. The examiner can normally be reached on Tuesday/Thursday and alt. Mondays from 8:30 am to 5:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923.

The central fax number for the organization where correspondence for this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2100

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sajeda Muhebbullah

Patent Examiner

Art Unit 2174

/S. M./

/DENNIS-DOON CHOW/

Supervisory Patent Examiner, Art Unit 2173